

REMARKS

Applicant is in receipt of the Office Action mailed August 15, 2008. Claims 1, 9-13, 20-24, 26-27, and 31-32 were rejected. Claims 1, 9, 11, 12, 24, 26, 27 and 31 have been amended. Claim 10 has been canceled. New claims 33 and 34 have been added. Claims 1, 9, 11-13, 20-24, 26-27, and 31-34 are now pending in the application. Reconsideration of the case is earnestly requested in light of the following remarks.

Section 101 Rejection

Claim 27 was rejected under 35 U.S.C. 101. The Examiner stated that the method as recited was not tied to any particular apparatus. Applicant has amended claim 27 to recite a computer-implemented method. Applicant submits that this is statutory subject matter and respectfully requests removal of the Section 101 rejection.

Section 103 Rejection

Claims 1, 9-11, 13, 20-24, 26, 27, 31 and 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,026,233 to Shulman et al. (hereinafter "Shulman") in view of U.S. Patent No. 5,784,275 to Sojoodi et al. (hereinafter "Sojoodi"). Applicant respectfully traverses this rejection.

Applicant respectfully submits that Shulman and Sojoodi, taken either singly or in combination, do not teach the following limitations in combination with the other limitations recited in amended claim 1:

programmatically determine one or more valid parameter values for the first parameter of the first function call by invoking software for a measurement device in order to determine one or more hardware resources of the measurement device, wherein each of the one or more valid parameter values represents a respective hardware resource of the one or more hardware resources;

With respect to the limitation of invoking software for a measurement device in order to determine one or more resources of the measurement device, the Examiner cites Sojoodi at Col. 7, lines 3-17:

The programming environment comprises an object manager and a program editor for editing the diagram. The invention comprises a method for creating a program for controlling the instrument which is independent of an interface type of the instrument. This method comprises the program editor displaying on the display screen an icon representing the instrument, the program editor querying the object manager for a list of classes of the instrument, where the classes correspond to possible VISA interface types of the instrument, the object manager parsing a class definition file containing the list of classes, the object manager providing the list of classes to the program editor, the program editor displaying on the display screen the list of classes of the instrument, and the user choosing a class from the list to associate with the instrument.

The Examiner apparently is referring in particular to Sojoodi's teaching of the program editor querying the object manager for a list of classes of the instrument, where the classes correspond to possible VISA interface types of the instrument. However, the classes corresponding to the possible VISA interface types of the instrument are not hardware resources of the instrument. Sojoodi teaches that the instrument may be coupled to a computer system through one of a plurality of possible interface types, such as GPIB, VXI, DAQ, and RS-232. (See Abstract; Col. 2, lines 10-17). At Col. 4, lines 35-40, Sojoodi teaches:

A given VISA session has a particular class corresponding to the hardware I/O interface type of the instrument being controlled. Examples of VISA session classes are generic instrument, VXI instrument, GPIB instrument, serial instrument.

Thus, the section of Sojoodi to which the Examiner refers simply teaches that the program editor queries the object manager for a list of classes corresponding to possible interface types through which the instrument may be coupled to the computer system. This does not amount to a teaching of invoking software in order to determine one or more hardware resources of the instrument (measurement device) itself, as recited in amended claim 1.

Applicant also respectfully submits that Shulman and Sojoodi do not teach the following limitations in combination with the other limitations recited in claim 1:

in response to user input requesting to select a parameter value, determine that the cursor is positioned on the first function call and display a graphical user interface for selecting a parameter value for the first parameter of the first

function call, wherein the graphical user interface visually indicates the one or more valid parameter values;

With respect to these limitations, the Examiner cites Shulman at FIG. 8 and Col. 12, lines 17-30. Shulman teaches here:

Pressing the Comma "," 811 commit key following the value Smith causes an update in the informational display assist window 740 so that the second argument 742 is highlighted to indicate the present location of the character position cursor 733 within the argument list. Because the second argument 742 is a defined type comprised of three color members, a selection menu assist window 850 is generated and overlaid on the informational display assist window 740. The selection menu assist window 850 contains three menu items 851-853 that the programmer can choose from to complete programming language statement shown in the information assist window 740 in a manner as previously disclosed in the text accompanying FIGS. 2-6. The selection menu assist window 840 is designed to disappear once a menu item is committed or the Escape key is pressed.

However, Shulman does not teach determining that the cursor is positioned on the first function call in response to user input requesting to select a parameter value. Likewise, Shulman does not teach that the graphical user interface for selecting the parameter value is displayed in response to user input requesting to select a parameter value. Applicant can find no teaching in Shulman of user input requesting to select a parameter value. Instead, it appears to Applicant that the selection menu automatically appears when the cursor advances to the second argument. Although the advance of the cursor to the second argument is caused by the user pressing the comma key, the act of pressing the comma key is not user input requesting to select a parameter value, but instead is user input requesting to input a comma character and advance the cursor. It appears to Applicant that in Shulman's system the selection menu will be displayed automatically when the user presses the comma key, whether the user actually wants to see the selection menu or not. Thus, the selection menu is displayed without the user explicitly requesting to select a parameter value. In contrast, claim 1 recites determining that the cursor is positioned on the first function call, and displaying the graphical user interface for selecting the parameter value, in response to user input requesting to select a parameter value.

Applicant thus respectfully submits that independent claim 1 is patentably distinct over the cited art for at least the reasons set forth above. Inasmuch as the independent claims 24, 26, and 27 recite similar limitations as those of claim 1, Applicant respectfully submits that these claims are also patentably distinct over the cited art.

In addition, in the rejection of claim 1 the Examiner does not provide any rationale of a suggestion or motivation to combine the reference teachings. The Examiner simply states:

Thus, as Sojoodi suggests, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Shulman so as to invoke software for a measurement device in order to determine one or more resources of the measurement device, wherein each of the one or more valid parameter values represents a respective resource of the one or more resources. (*Emphasis added*)

However, the Examiner does not indicate where this alleged suggestion by Sojoodi can be found. Applicant respectfully submits that the Examiner has not provided any evidence of a suggestion or motivation to combine the reference teachings, and thus, the rejection is defective for at least this reason.

Applicant notes that independent claim 31 recites limitations distinct from those of claims 1, 24, 26, and 27. Whereas claims 1, 24, 26, and 27 relate to modifying text-based source code by automatically modifying a first function call written in a text-based programming language, claim 31 relates to modifying a graphical program block diagram which includes a plurality of interconnected nodes by automatically configuring a first node of the plurality of interconnected nodes with the selected first parameter value. Applicant can find no teaching in the cited references, taken either singly or in combination, of “automatically configure the first node with the first parameter value in response to the user input selecting the first parameter value,” in combination with the other limitations recited in claim 31. With respect to this limitation the Examiner cites Shulman’s teaching of modifying a function call written in a text-based programming language. However, modifying a function call written in a text-based programming

language is not the same as automatically configuring a node in a block diagram of a graphical program with a parameter value. Shulman does not teach this limitation in combination with the other limitations recited in claim 31, nor is this deficiency remedied by combining Sojoodi with Shulman.

Applicant thus respectfully submits that all of the independent claims are patentably distinct over the cited art. Since the independent claims have been shown to be patentably distinct, Applicant submits that the dependent claims are also patentably distinct, for at least this reason. Applicant also respectfully submits that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

Applicant notes that two new dependent claims 33 and 34 have been added. Claim 33 recites that the measurement device includes a plurality of channels, where invoking the software for the measurement device in order to determine the one or more hardware resources of the measurement device comprises invoking the software for the measurement device in order to determine the plurality of channels. As discussed above, the Examiner has cited Sojoodi's teaching of querying an object manager for a list of classes corresponding to possible interface types through which the instrument may be coupled to the computer system. However, the classes are not channels of a measurement device, as recited in claim 33.

Claim 34 recited that the invocation of the software for the measurement device in order to determine the one or more hardware resources of the measurement device is performed in response to the user input requesting to select a parameter value. Applicant respectfully submits that the cited art does not teach this limitation in combination with the other limitations recited in claim 1.

CONCLUSION

In light of the foregoing amendments and remarks, Applicant submits the application is now in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above-referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. The Commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to Meyertons, Hood, Kivlin, Kowert & Goetzel P.C., Deposit Account No. 50-1505/5150-77600/JCH.

Respectfully submitted,

/Jeffrey C. Hood/

Jeffrey C. Hood, Reg. #35198

ATTORNEY FOR APPLICANT(S)

Meyertons, Hood, Kivlin, Kowert & Goetzel PC
P.O. Box 398
Austin, TX 78767-0398
Phone: (512) 853-8800
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